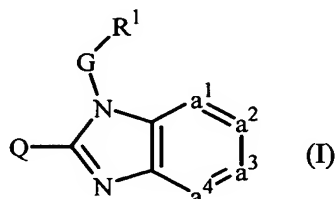This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. *(currently amended)* A compound of formula

(I)

~~a~~ **an ester or amide** prodrug, N-oxide, addition salt, quaternary amine, metal complex or stereochemically isomeric form thereof

wherein $-a^1=a^2-a^3=a^4-$ represents a bivalent radical of formula

$-CH=CH-CH=CH-$ (a-1);

wherein each hydrogen atom in the radical (a-1) may optionally be replaced by halo, C_{1-6}alkyl, nitro, amino, hydroxy, C_{1-6}alkyloxy, polyhaloC_{1-6}alkyl, carboxyl, aminoC_{1-6}alkyl, mono- or di(C_{1-4}alkyl)aminoC_{1-6}alkyl, C_{1-6}alkyloxycarbonyl, hydroxyC_{1-6}alkyl, or a radical of formula
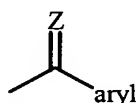
wherein $=Z$ is $=O$, $=CH-C(=O)-NR^{5a}R^{5b}$, $=CH_2$, $=CH-C_{1-6}$alkyl, $=N-OH$ or $=N-O-C_{1-6}$alkyl;

Q is a radical of formula

(b-1)   (b-2)   (b-3)   (b-4)

(b-5)   (b-6)   (b-7)   (b-8)
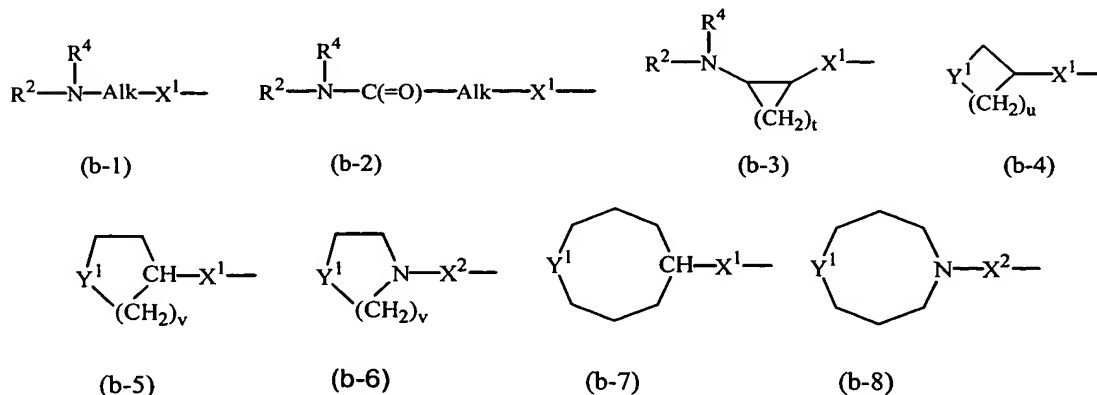
wherein

Alk is C_{1-6}alkanediyl;

Y^1 is a bivalent radical of formula $-NR^2-$ or $-CH(NR^2R^4)-$;

X^1 is NR^4, S, S(=O), S(=O)$_2$, O, CH$_2$, C(=O), C(=CH$_2$), CH(OH), CH(CH$_3$), CH(OCH$_3$), CH(SCH$_3$), CH(NR^{5a}R^{5b}), CH$_2$-NR^4 or NR^4-CH$_2$;

X^2 is a direct bond, CH$_2$, C(=O), NR^4, <u>C_{1-4}alkylene-NR^4, or NR^4-C_{1-4}alkylene</u> ~~C_{1-4}alkyl-NR^4, NR^4-C_{1-4}alkyl~~;

t is 2, 3, 4 or 5;

u is 1, 2, 3, 4 or 5;

v is 2 or 3; and

whereby each hydrogen atom in Alk and the carbocycles and the heterocycles defined in radicals (b-3), (b-4), (b-5), (b-6), (b-7) and (b-8) may optionally be replaced by R^3; with the proviso that when R^3 is hydroxy or C_{1-6}alkyloxy, then R^3 can not replace a hydrogen atom in the α position relative to a nitrogen atom;

G is a direct bond or C_{1-10}alkanediyl optionally substituted with one, two or three substituents selected from hydroxy, C_{1-6}alkyloxy, arylC_{1-6}alkyloxy, C_{1-6}alkylthio, arylC_{1-6}alkylthio, arylcarbonyl, HO(-CH$_2$-CH$_2$-O)$_n$-, C_{1-6}alkyloxy(-CH$_2$-CH$_2$-O)$_n$-, arylC_{1-6}alkyloxy(-CH$_2$-CH$_2$-O)$_n$-, amino, mono-or di(C_{1-6}alkyl)amino, C_{1-6}alkyloxycarbonylamino and aryl;
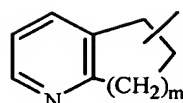
R^1 is a bicyclic heterocycle selected from quinolinyl, <u>isoquinolinyl,</u> quinoxalinyl, benzofuranyl, benzothienyl, benzimidazolyl, benzoxazolyl, benzthiazolyl, pyridopyridyl, naphthiridinyl, 1H-imidazo[4,5-b]pyridinyl, 3H-imidazo[4,5-b]pyridinyl, imidazo[1,2-a]pyridinyl, 2,3-dihydro-1,4-dioxino[2,3-b]pyridyl or a radical of formula
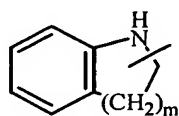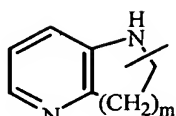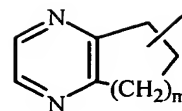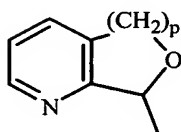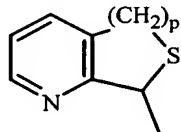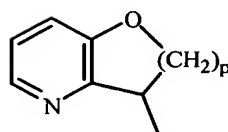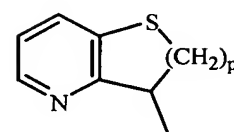
(c-1)   (c-2)   (c-3)   (c-4)

(c-5)   (c-6)   (c-7)   (c-8)

and said bicyclic heterocycles may optionally be substituted in either of the two cycles with 1 or where possible more, such as 2, 3 or 4, substituents selected from halo, hydroxy, amino, cyano, carboxy, C_{1-6}alkyl, C_{1-6}alkyloxy, C_{1-6}alkylthio, C_{1-6}alkyloxyC_{1-6}alkyl, aryl, arylC_{1-6}alkyl, arylC_{1-6}alkyloxy, hydroxyC_{1-6}alkyl, mono- or di(C_{1-6}alkyl)amino, mono-or di(C_{1-6}alkyl)aminoC_{1-6}alkyl, polyhaloC_{1-6}alkyl, C_{1-6}alkylcarbonylamino, C_{1-6}alkyl-SO_2-NR^{5c}-, aryl-SO_2-NR^{5c}-, C_{1-6}alkyloxycarbonyl, -C(=O)-$NR^{5c}R^{5d}$, HO(-CH_2-CH_2-O)$_n$-, halo(-CH_2-CH_2-O)$_n$-, C_{1-6}alkyloxy(-CH_2-CH_2-O)$_n$-, arylC_{1-6}alkyloxy(-CH_2-CH_2-O)$_n$- and mono-or di(C_{1-6}alkyl)amino(-CH_2-CH_2-O)$_n$-;

each n independently is 1, 2, 3 or 4;

each m independently is 1 or 2;

each p independently is 1 or 2;

each R^2 independently is hydrogen, formyl, C_{1-6}alkylcarbonyl, Hetcarbonyl, pyrrolidinyl, piperidinyl, homopiperidinyl, C_{3-7}cycloalkyl substituted with $N(R^6)_2$, or C_{1-10}alkyl substituted with $N(R^6)_2$ and optionally with a second, third or fourth substituent selected from amino, hydroxy, C_{3-7}cycloalkyl, C_{2-5}alkanediyl, piperidinyl, mono-or di(C_{1-6}alkyl)amino, C_{1-6}alkyloxycarbonylamino, aryl and aryloxy;

R^3 is hydrogen, hydroxy, C_{1-6}alkyl, C_{1-6}alkyloxy, arylC_{1-6}alkyl or arylC_{1-6}alkyloxy;

R^4 is hydrogen, C_{1-6}alkyl or arylC_{1-6}alkyl;

R^{5a}, R^{5b}, R^{5c} and R^{5d} each independently are hydrogen or C_{1-6}alkyl; or

R^{5a} and R^{5b}, or R^{5c} and R^{5d} taken together form a bivalent radical of formula -$(CH_2)_s$- wherein s is 4 or 5;

R^6 is hydrogen, C_{1-4}alkyl, formyl, hydroxyC_{1-6}alkyl, C_{1-6}alkylcarbonyl or C_{1-6}alkyloxycarbonyl;

aryl is phenyl or phenyl substituted with 1 or more, ~~such as 2, 3 or 4,~~ substituents selected from halo, hydroxy, C_{1-6}alkyl, hydroxyC_{1-6}alkyl, polyhaloC_{1-6}alkyl, and C_{1-6}alkyloxy; and

Het is pyridyl, pyrimidinyl, pyrazinyl, **or** pyridazinyl.

2. *(cancelled)*

3. *(previously presented)*   A compound according to claim 1, wherein Q is a radical of formula (b-5) wherein v is 2 and Y^1 is -NR^2-.

4. *(previously presented)*   A compound according to claim 1, wherein R^2 is C_{1-10}alkyl substituted with NHR^6.

5. *(previously presented)*   A compound according to claim 1, wherein G is a direct bond or C_{1-10}alkanediyl optionally substituted with one, two or three substituents selected from hydroxy, C_{1-6}alkyloxy, arylC_{1-6}alkyloxy, HO(-CH_2-CH_2-O)$_n$-, C_{1-6}alkyloxy(-CH_2-CH_2-O)$_n$-, arylC_{1-6}alkyloxy(-CH_2-CH_2-O)$_n$-.

6. *(currently amended)*   A compound according to claim 1, wherein the compound is

($\pm$)-N-[1-(2-aminoethyl)-4-piperidinyl]-4-methyl-1-[1-(8-quinolinyl)ethyl]-*1H*-benzimidazol-2-amine monohydrate;

($\pm$)-N-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-1-(2-bromo-5,6,7,8-tetrahydro-8-quinolinyl)-*1H*-benzimidazol-2-amine trihydrochloride trihydrate;

($\pm$)-N-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-1-[(2-ethoxyethoxy)-8-quinolinylmethyl]-4-methyl-*1H*-benzimidazol-2-amine;

($\pm$)-N-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-1-(2-chloro-5,6,7,8-tetrahydro-5-quinoxalinyl)-*1H*-benzimidazol-2-amine trihydrochloride trihydrate;

(±)-*N*-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-1-[(1-methyl-*1H*-benzimidazol-4-yl)methyl]-*1H*-benzimidazol-2-amine;

(±)-*N*-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-1-(ethoxy-8-quinolinylmethyl)-*1H*-benzimidazol-2-amine;

(±)-*N*-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-4-methyl-1-(5,6,7,8-tetrahydro-5-quinoxalinyl)-*1H*-benzimidazol-2-amine;

N-[1-(2-aminoethyl)-4-piperidinyl]-4-methyl-1-(8-quinolinylmethyl)-*1H*-benzimidazol-2-amine;

N-[1-(8-quinolinylmethyl)-*1H*-benzimidazol-2-yl]-1,3-propanediamine trihydrochloride monohydrate;

(±)-*N*-[1-(2-aminoethyl)-4-piperidinyl]-1-[(2-ethoxyethoxy)-8-quinolinylmethyl]-*1H*-benzimidazol-2-amine trihydrochloride dihydrate;

(±)-*N*-[1-[1-(aminomethyl)-2-methylpropyl]-4-piperidinyl]-1-[(2-ethoxyethoxy)-8-quinolinylmethyl]-*1H*-benzimidazol-2-amine;

(±)-*N*-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-1-(1-isoquinolinylmethyl)-*1H*-benzimidazol-2-amine trihydrochloride trihydrate;

N-[1-(2-aminoethyl)-4-piperidinyl]-1-(5,6,7,8-tetrahydro-5-quinoxalinyl)-*1H*-benzimidazol-2-amine trihydrochloride trihydrate;

(±)-*N*-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-4-methyl-1-(8-quinolinylmethyl)-*1H*-benzimidazol-2-amine;

(±)-*N*-[1-(2-aminoethyl)-4-piperidinyl]-1-(2-chloro-5,6,7,8-tetrahydro-5-quinoxalinyl)-4-methyl-*1H*-benzimidazol-2-amine trihydrochloride trihydrate;

(±)-*N*-[1-(2-aminoethyl)-4-piperidinyl]-1-(5,6,7,8-tetrahydro-2,3-dimethyl-5-quinoxalinyl)-*1H*-benzimidazol-2-amine trihydrochloride trihydrate;

(±)-*N*-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-1-[(2-ethoxyethoxy)-8-quinolinylmethyl]-*1H*-benzimidazol-2-amine;

(±)-*N*-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-1-(3-chloro-5,6,7,8-tetrahydro-5-quinoxalinyl)-*1H*-benzimidazol-2-amine trihydrochloride monohydrate;

(±)-*N*-[1-(2-aminoethyl)-4-piperidinyl]-1-(3-chloro-5,6,7,8-tetrahydro-5-quinoxalinyl)-4-methyl-*1H*-benzimidazol-2-amine trihydrochloride dihydrate;

(±)-*N*-[1-(2-aminoethyl)-4-piperidinyl]-1-[(2-ethoxyethoxy)-8-quinolinylmethyl]-4-methyl-*1H*-benzimidazol-2-amine monohydrate;

(±)-*N*-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-4-methyl-1-[(1-methyl-*1H*-benzimidazol-4-yl)methyl]-*1H*-benzimidazol-2-amine;

(±)-*N*-[1-(2-amino-3-methylbutyl)-4-piperidinyl]-1-(2-chloro-5,6,7,8-tetrahydro-5-quinoxalinyl)-4-methyl-*1H*-benzimidazol-2-amine;

~~a~~ **an ester or amide** prodrug, *N*-oxide, addition salt, quaternary amine, metal complex or stereochemically isomeric form thereof.

7. *(previously presented)* A method of treating a respiratory syncytial viral infection, comprising the step of administering a therapeutically effective amount of a compound as claimed in any one of claims 1 and 3 to 6 .

8. *(previously presented)*   A pharmaceutical composition, comprising a pharmaceutically acceptable carrier, and as active ingredient a therapeutically effective amount of a compound as claimed in any one of claims 1 and 3 to 6.

9. *(previously presented)*   A process of preparing a composition as claimed in claim 8, comprising the step of intimately mixing said carrier with said compound.
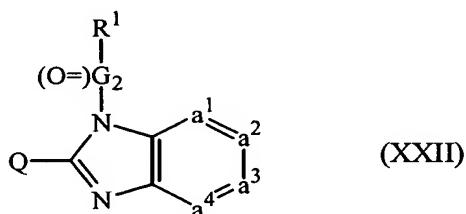
10. *(original)* An intermediate of formula

(IV)
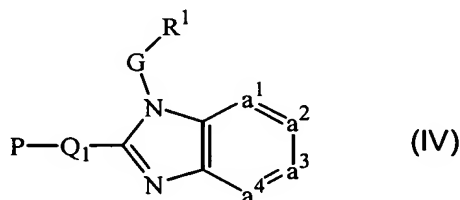
with R^1, G and -a^1=a^2-a^3=a^4- defined as in claim 1, P being a protective group, and Q_1 being defined as Q according to claim 1 but being devoided of the R^2 or R^6 substituent.

11. *(original)* An intermediate of formula

(IX)
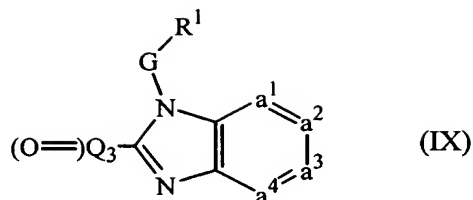
with R^1, G and -a^1=a^2-a^3=a^4- defined as in claim 1, and $(O=)Q_3$ being a carbonyl derivative of Q, said Q being defined according to claim 1, provided that it is devoided of the NR^2R^4 or NR^2 substituent.
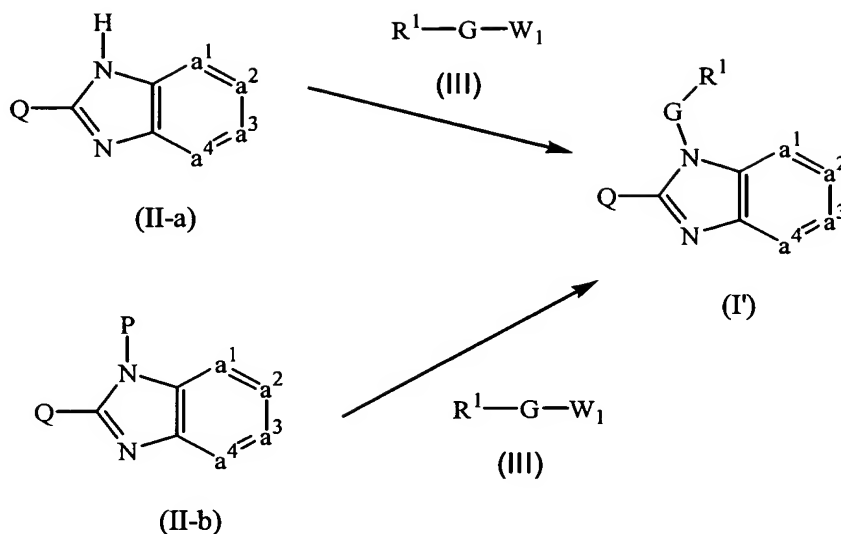
12. *(original)* An intermediate of formula

$(XXII)$

with R^1, Q and -a^1=a^2-a^3=a^4- defined as in claim 1, and $(O=)G_2$ being a carbonyl derivative of G, said G being defined according to claim 1.

13. *(currently amended)*   A process of preparing a compound as claimed in claim 1, comprising at least one step selected from the group consisting of:

a)   reacting an intermediate of formula (II-a) or (II-b) with an intermediate of formula (III)

(II-a)

R^1—G—W_1

(III)

(I')

(II-b)

R^1—G—W_1

(III)

with R^1, G, Q and -a^1=a^2-a^3=a^4- defined as in claim 1, and W_1 being a suitable leaving group, in the presence of a suitable base and in a suitable reaction-inert solvent;

b)   deprotecting an intermediate of formula (IV)
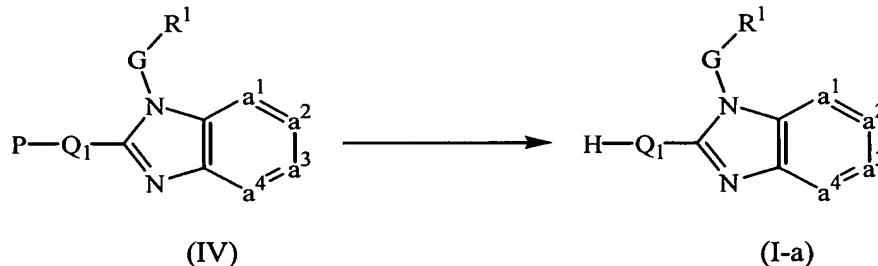
(IV)

(I-a)

with R^1, G, and -a^1=a^2-a^3=a^4- defined as in claim 1, H-Q_1 being defined as Q according to claim 1 provided that R^2 or at least one R^6 substituent is hydrogen, and P being a protective group;
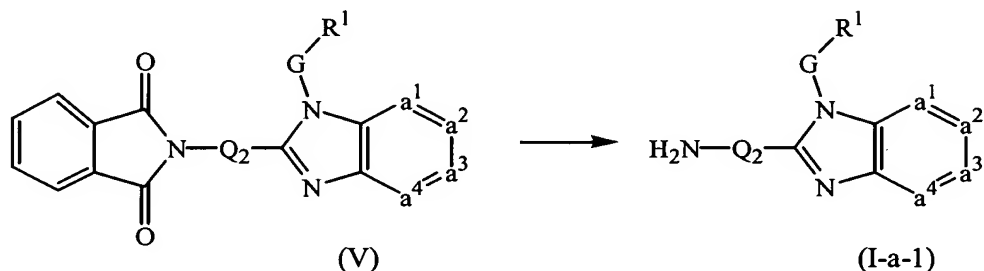
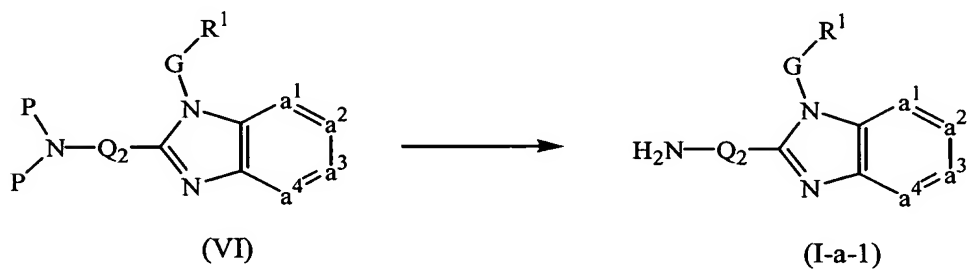c)   deprotecting and reducing an intermediate of formula (IV-a)
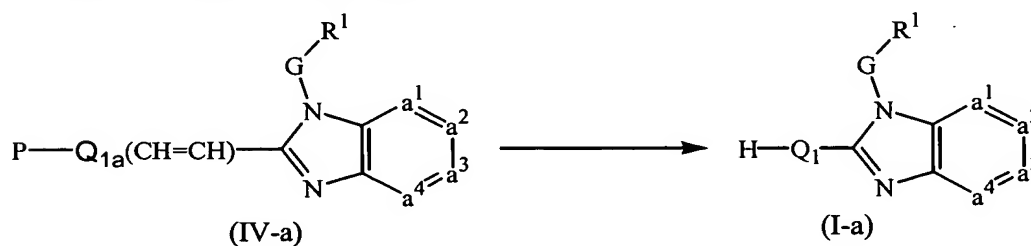
(IV-a)

(I-a)

with R^1, G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, $H-Q_1$ being defined as Q according to claim 1 provided that R^2 or at least one R^6 substituent is hydrogen, $Q_{1a}(CH=CH)$ being defined as Q_1 provided that Q_1 comprises an unsaturated bond, and P being a protective group;

d)   deprotecting an intermediate of formula (V)

(V)   (I-a-1)

with R^1, G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and H_2N-Q_2 being defined as Q according to claim 1 provided that both R^6 substituents are hydrogen or R^2 and R^4 are both hydrogen;

e)   deprotecting an intermediate of formula (VI)

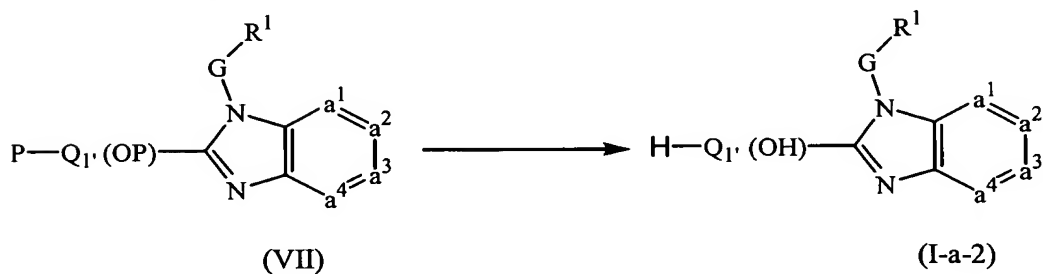(VI)   (I-a-1)

with R^1, G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and H_2N-Q_2 being defined as Q according to claim 1 provided that both R^6 substituents are hydrogen or R^2 and R^4 are both hydrogen, and P being a protective group;
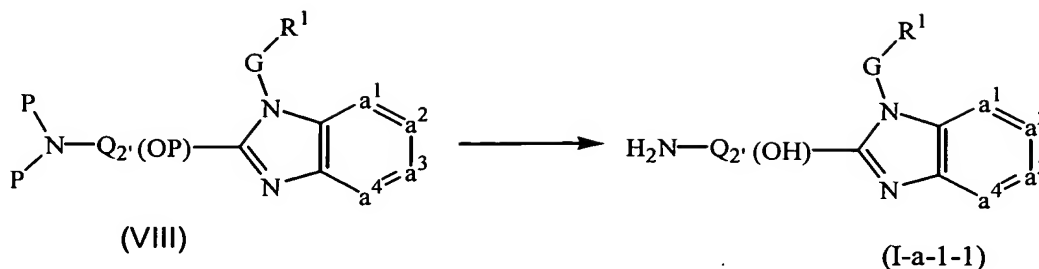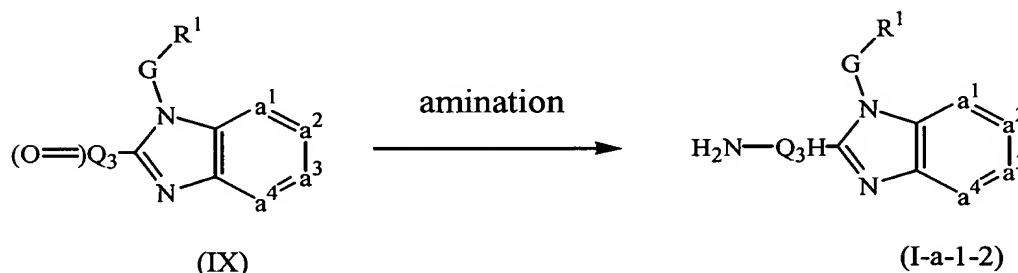
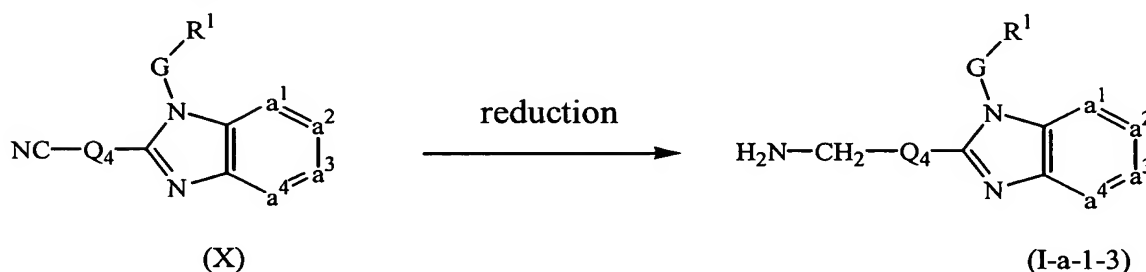f)   deprotecting an intermediate of formula (VII) or (VIII)

(VII)   (I-a-2)

(VIII) → (I-a-1-1)

with R^1, G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, $H-Q_{1'}(OH)$ being defined as Q according to claim 1 provided that R^2 or at least one R^6 substituent is hydrogen and provided that Q comprises a hydroxy moiety, $H_2N-Q_{2'}(OH)$ being defined as Q according to claim 1 provided that both R^6 substituents are hydrogen or R^2 and R^4 are both hydrogen and provided that Q comprises a hydroxy moiety, and P being a protective group;
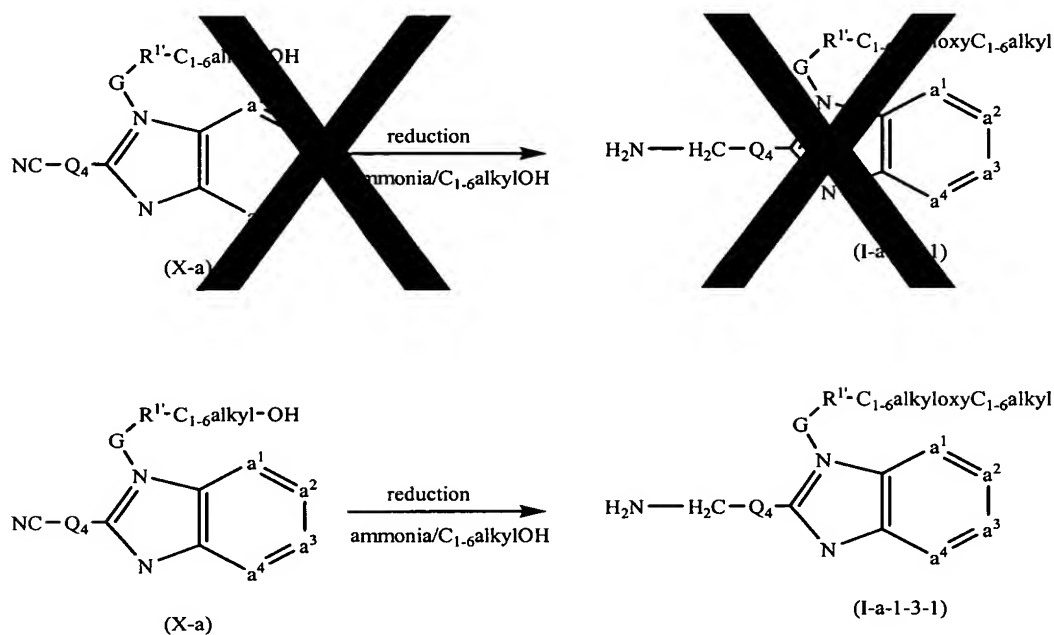
g)   amination of an intermediate of formula (IX)

(IX) → (I-a-1-2)

with R^1, G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and H_2N-Q_3H being defined as Q according to claim 1 provided that both R^6 substituents are hydrogen or R^2 and R^4 are both hydrogen, and the carbon adjacent to the nitrogen carrying the R^6, or R^2 and R^4 substituents contains at least one hydrogen, in the presence of a suitable amination reagent;
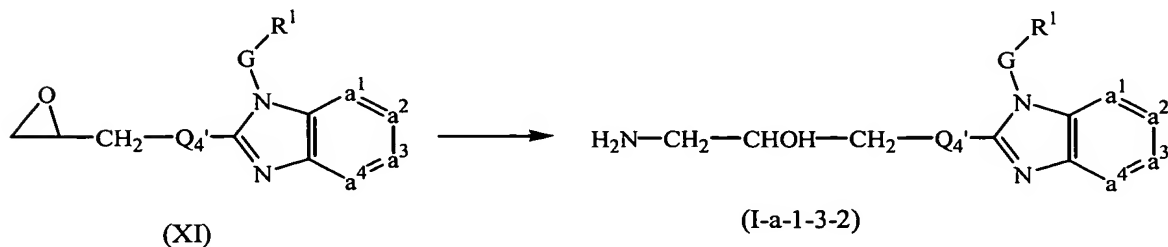
h)   reducing an intermediate of formula (X)

(X) → (I-a-1-3)

with R^1, G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $H_2N\text{-}CH_2\text{-}Q_4$ being defined as Q according to claim 1 provided that Q comprises a $-CH_2\text{-}NH_2$ moiety, in the presence of a suitable reducing agent;

i)   reducing an intermediate of formula (X-a)

with G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, $H_2N\text{-}CH_2\text{-}Q_4$ being defined as Q according to claim 1 provided that Q comprises a $-CH_2\text{-}NH_2$ moiety, and $R^{1'}$ being defined as R^1 according to claim 1 provided that it comprises at least one substituent, in the presence of a suitable reducing agent and suitable solvent;
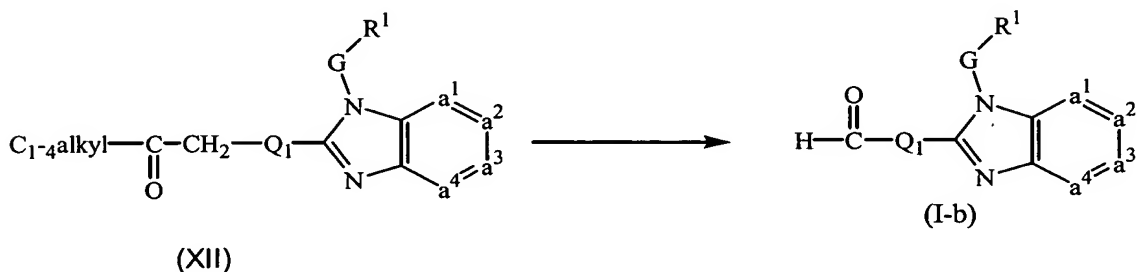
j)   amination of an intermediate of formula (XI)

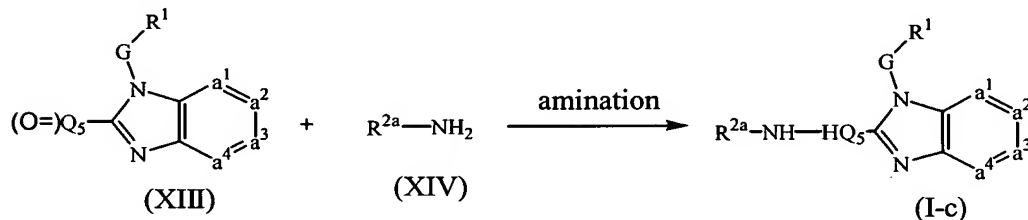with R^1, G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $H_2N\text{-}CH_2\text{-}CHOH\text{-}$

CH$_2$-Q$_4$, being defined as Q according to claim 1 provided that Q comprises a CH$_2$-CHOH-CH$_2$-NH$_2$ moiety, in the presence of a suitable amination reagent;

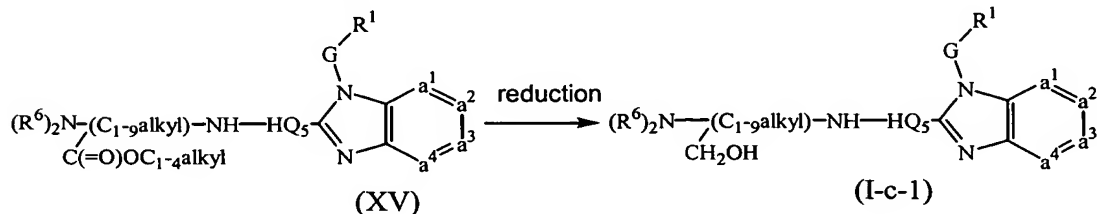k)   reacting an intermediate of formula (XII) with formic acid, formamide and ammonia

(XII)   (I-b)

with R^1, G, and -a^1=a^2-a^3=a^4- defined as in claim 1, and H-C(=O)-Q$_1$ being defined as Q according to claim 1 provided that R^2 or at least one R^6 substituent is formyl;

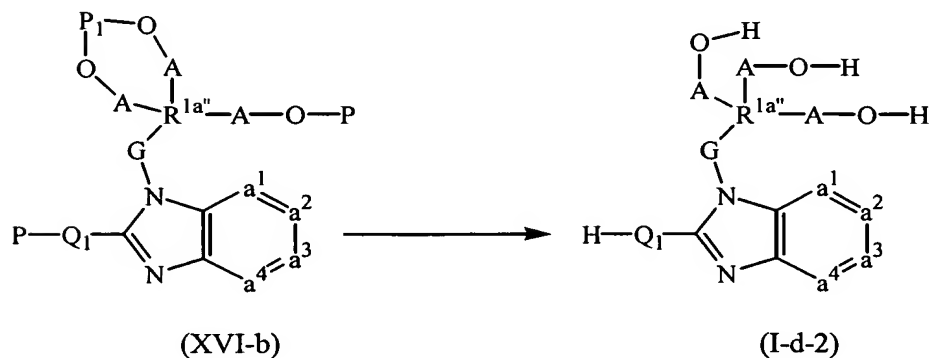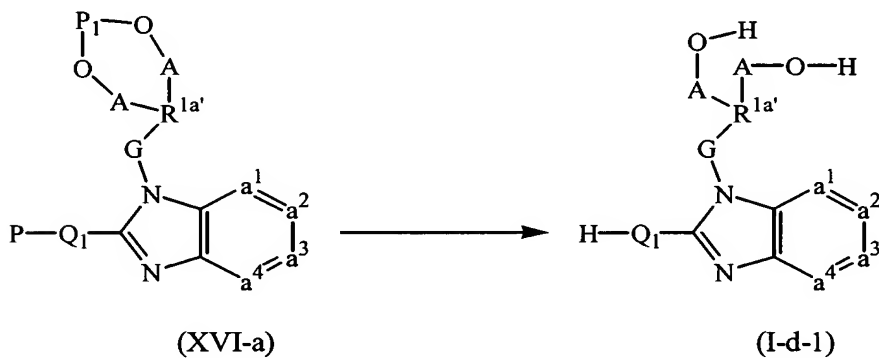l)   amination of an intermediate of formula (XIII) by reaction with an intermediate of formula (XIV)

(XIII)   (XIV)   (I-c)

with R^1, G, and -a^1=a^2-a^3=a^4- defined as in claim 1, and R^{2a}-NH-HQ$_5$ being defined as Q according to claim 1 provided that R^2 is other than hydrogen and is represented by R^{2a}, R^4 is hydrogen, and the carbon atom adjacent to the nitrogen atom carrying the R^2 and R^4 substituents, carries also at least one hydrogen atom, in the presence of a suitable reducing agent;

m)   reducing an intermediate of formula (XV)

(XV)   (I-c-1)

with R^1, G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $(R^6)_2N-[(C_{1-9}alkyl)CH_2OH]-NH-HQ_5$ being defined as Q according to claim 1 provided that R^2 is other than hydrogen and is represented by $C_{1-10}alkyl$ substituted with $N(R_6)_2$ and with hydroxy, and the carbon atom carrying the hydroxy, carries also two hydrogen atoms, and provided that R^4 is hydrogen, and the carbon atom adjacent to the nitrogen atom carrying the R^2 and R^4 substituents, carries also at least one hydrogen atom, with a suitable reducing agent;

n)   deprotecting an intermediate of formula (XVI), (XVI-a) or (XVI-b)

(XVI)   (I-d)
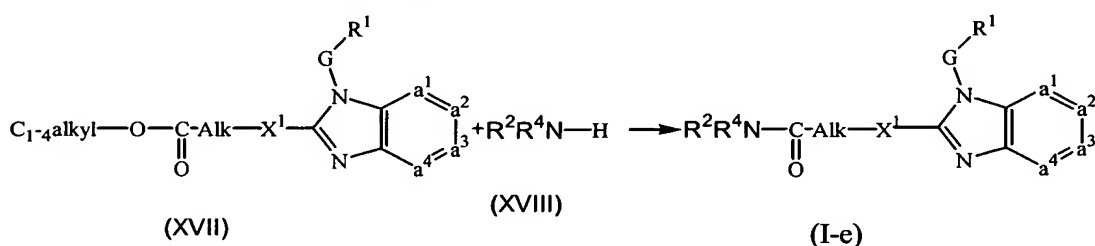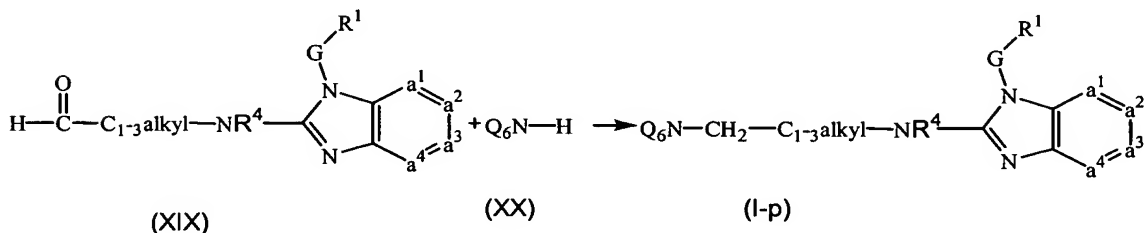

(XVI-a)   (I-d-1)

(XVI-b)   (I-d-2)
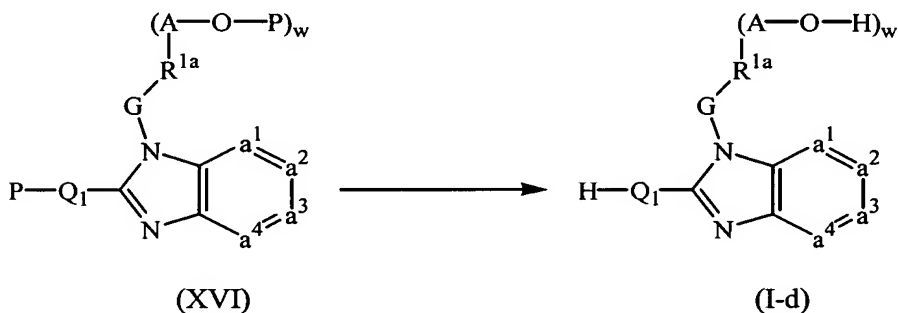
with G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $H-Q_1$ being defined as Q according to claim 1 provided that R^2 or at least one R^6 substituent is hydrogen, and $R^{1a}-(A-O-H)_w$, $R^{1a'}-(A-O-H)_2$ and $R^{1a''}-(A-O-H)_3$ being defined as R^1 according to claim 1 provided that R^1 is substituted with hydroxy, hydroxyC_{1-6}alkyl, or $HO(-CH_2-CH_2-O)_n-$, with w being an integer from 1 to 4 and P or P_1 being a suitable protecting group, with a suitable acid;

o)   amination of an intermediate of formula (XVII)

(XVII)   (XVIII)   (I-e)

with R^1, G, $-a^1=a^2-a^3=a^4-$, Alk, X^1 R^2 and R^4 defined as in claim 1, in the presence of a suitable amination agent;

p)   amination of an intermediate of formula (XIX)

(XIX)   (XX)   (I-p)

with R^1, G, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and $Q_6N-CH_2-C_{1-3}$alkyl-NR^4 being defined as Q according to claim 1 provided that in the definition of Q, X^2 is C_{2-4}alkyl-NR^4, in the presence of a suitable amination agent;

q)   deprotecting an intermediate of formula (XXI)

(XXI)   (I-q)
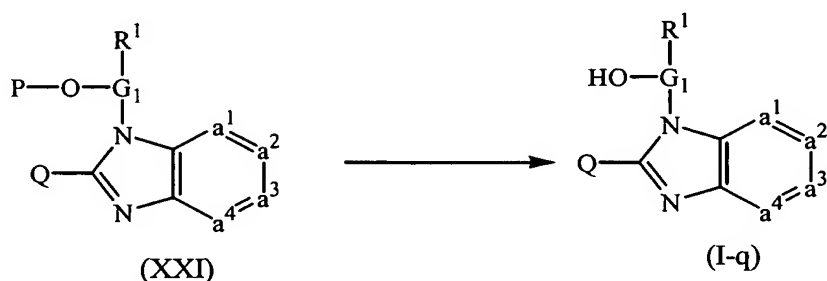
with R^1, Q, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and HO-G_1 being defined as G according to claim 1 provided that G is substituted with hydroxy or HO-$(CH_2CH_2O-)_n$; and

r)   reducing an intermediate of formula (XXII)

(XXII)   (I-q-1)

with R^1, Q, and $-a^1=a^2-a^3=a^4-$ defined as in claim 1, and H-G_2-OH being defined as G according to claim 1 provided that G is substituted with hydroxy and the carbon atom carrying the hydroxy substituent carries also at least one hydrogen, in the presence of a suitable reducing agent.

14. *(cancelled)*

15. *(cancelled)*

16. *(previously added)*   The process of claim 13, further comprising the step of converting compound of formula (I'), stereochemically isomeric forms, metal complexes, quaternary amines or N-oxide forms thereof, into a therapeutically active non-toxic acid addition salt by treatment with an acid.

17. *(previously added)*   The process of claim 13, further comprising the step of converting compound of formula (I'), stereochemically isomeric forms, metal complexes, quaternary amines or N-oxide forms thereof, into a therapeutically active non-toxic base addition salt by treatment with alkali.

18. *(previously added)*   The process of claim 13, further comprising the step of converting the acid addition salt form of compound of formula (I'), stereochemically

isomeric forms, metal complexes, quaternary amines or *N*-oxide forms thereof, into the free base by treatment with alkali.

19. *(previously added)*   The process of claim 13, further comprising the step of converting the base addition salt form of compound of formula (I'), stereochemically isomeric forms, metal complexes, quaternary amines or *N*-oxide forms thereof, into the free acid by treatment with acid.